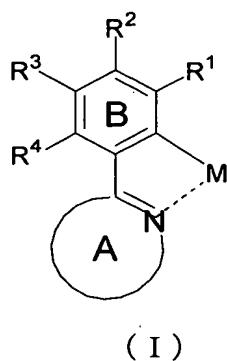


What is claimed is:

1. A metal-complex compound having a partial structure represented by a following general formula (I):

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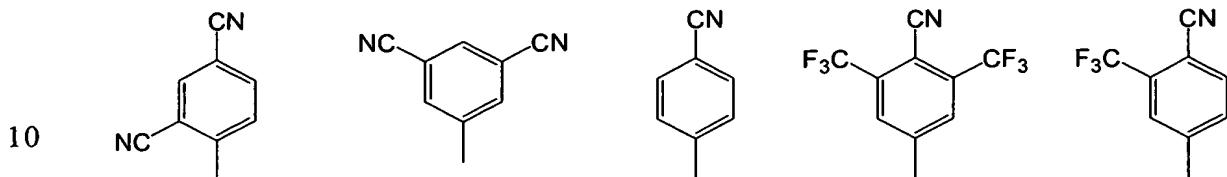
wherein Structure B represents a benzene ring structure having R¹ to R⁴; R¹ to R⁴ each independently represents a hydrogen atom, a cyano group, a halogen atom, a substituted or unsubstituted alkyl group having 1 to 20 carbon atoms, a substituted or unsubstituted amino group, a substituted or unsubstituted alkoxy group having 1 to 20 carbon atoms, a substituted or unsubstituted aromatic group having 1 to 30 carbon atoms; at least one among R¹ to R⁴ is a cyano group; and a couple of R¹ and R², a couple of R² and R³, and a couple of R³ and R⁴ may bond each other to form a ring structure;

- 10 Structure A represents a ring structure having 3 to 20 carbon atoms, further having at least one carbon-nitrogen double bond and may have a substituent; which may form a ring structure having the foregoing R⁴; and
15 M represents any one metal atom selected from iridium (Ir) atom, rhodium (Rh) atom, platinum (Pt) atom or palladium (Pd) atom.

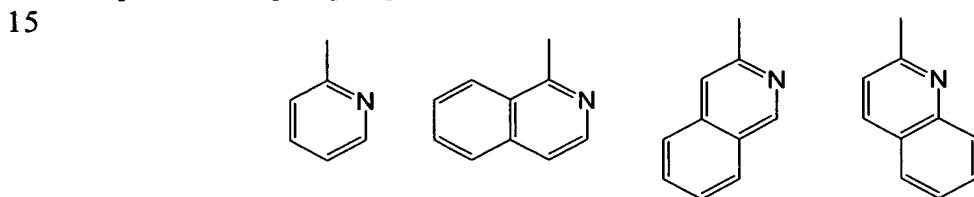
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2. The metal-complex compound according to Claim 1, which is a material for a light emitting element.

3. The metal-complex compound according to Claim 1, wherein said Structure B
5 represents a substituted benzene ring moiety represented by any one of following
formulae:

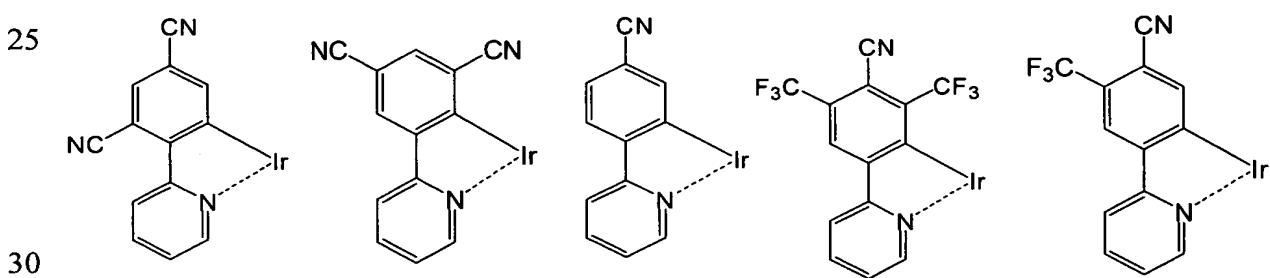


4. The metal-complex compound according to Claim 1, wherein said Structure A
represents a group represented by any one of following formulae:

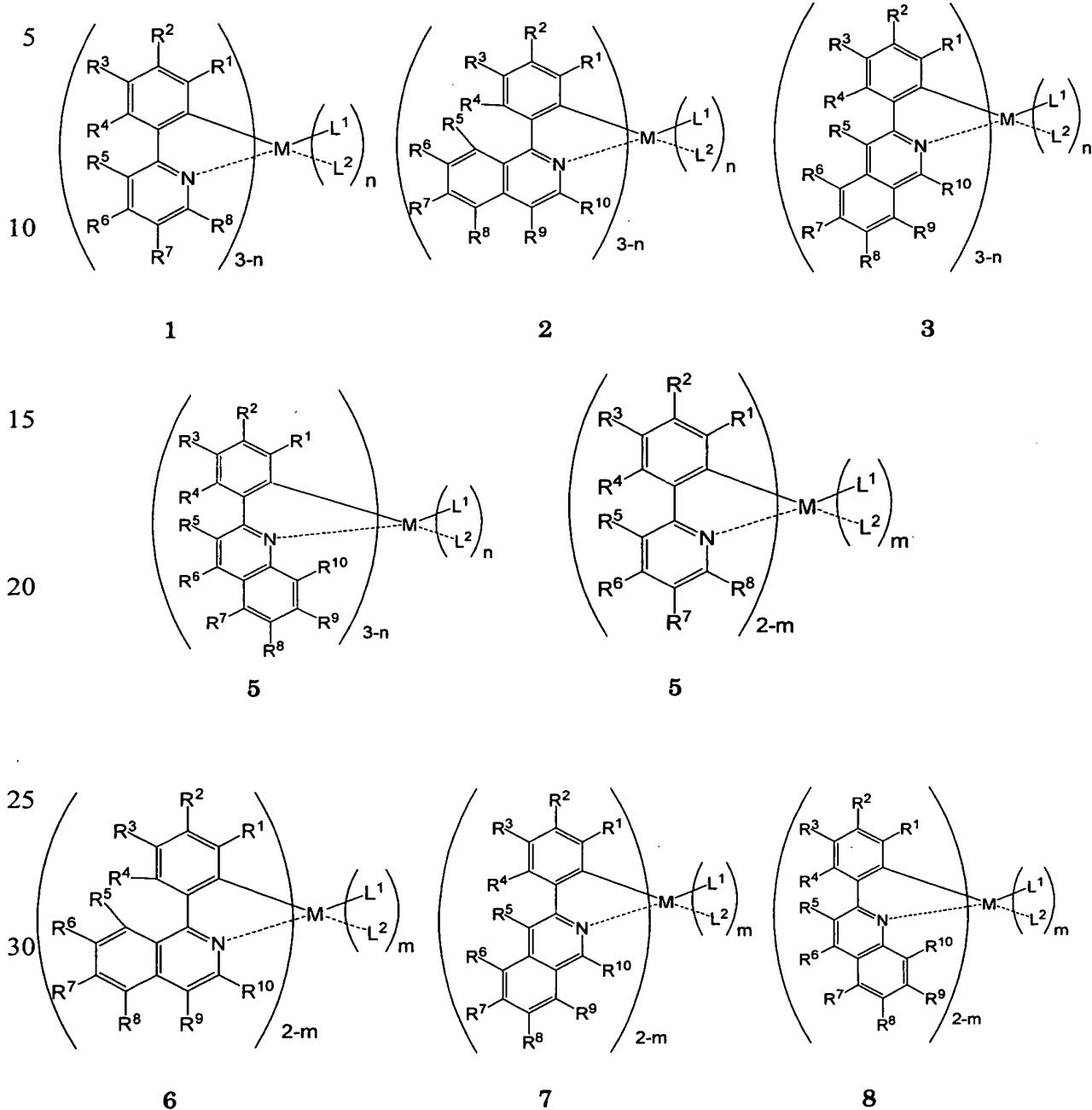


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5. The metal-complex compound according to Claim 1, wherein said partial
structure represented by the general formula (I) is expressed by any one of
following formulae:



6. The metal-complex compound according to Claim 1, which is expressed by any one of following general formulae 1 to 8:



wherein R¹ to R¹⁰ each independently represents a hydrogen atom, a cyano group,

a halogen atom, a substituted or unsubstituted alkyl group having 1 to 20 carbon atoms, a substituted or unsubstituted amino group, a substituted or unsubstituted alkoxy group having 1 to 20 carbon atoms, a substituted or unsubstituted aromatic group having 1 to 30 carbon atoms; at least one among

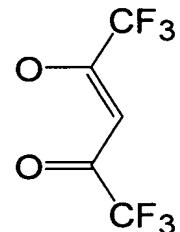
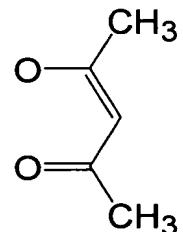
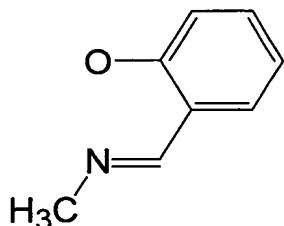
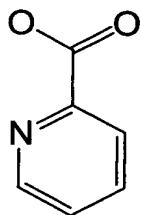
5 R¹ to R⁴ is a cyano group;

and a couple of R¹ and R², a couple of R² and R³, a couple of R³ and R⁴, a couple of R⁴ and R⁵, a couple of R⁵ and R⁶, a couple of R⁶ and R⁷, a couple of R⁸ and R⁹, and a couple of R⁹ and R¹⁰ may bond each other to form a ring structure;

M represents any one metal atom selected from iridium (Ir) atom, rhodium (Rh)

10 atom, platinum (Pt) atom or palladium (Pd) atom; and

L¹ and L² each independently represents any one structure expressed by following structures:



20

pic

sim

acac

facac

and

wherein n represents an integer of 0 to 2, and m represents an integer of 0 or 1.

7. An organic electroluminescence device which comprises at least one organic thin film layer sandwiched between a pair of electrode consisting of an anode and a cathode, wherein the organic thin film layer comprises the metal-complex compound according to any one of Claims 1 to 6, which emits light by applying an electric voltage between the pair of electrode.

8. The organic electroluminescence device according to Claim 7, wherein said light emitting layer comprises said metal-complex compound.
- 5 9. The organic electroluminescence device according to Claim 7, wherein at least one of an electron injecting layer or an electron transporting layer with a π -electron lacking heteroring derivative having a nitrogen atom as its essential component sandwiched between said light emitting layer and said cathode.
- 10 10. The organic electroluminescence device according to Claim 7, wherein a reductive dopant is added in an interfacial region between said cathode and said organic thin film layer.
- 15 11. The organic electroluminescence device according to Claim 7, wherein said organic thin film layer comprising the metal-complex compound is formed by coating.